



COMPUTER KEYBOARD...

*the modern, low-cost route to typesetting automation
in composing-rooms of all sizes.*

- CK INSTANT PROFIT—from the very first day!
- CK HIGHER SPEED—no rubouts . . . far greater capacity!
- CK FLAWLESS LINECASTING—perfect automatic justification . . . errors sharply reduced!
- CK COMPLETE COMPATABILITY—with any tape-driven linecaster!
- CK NO INSTALLATION COSTS—wheel it up . . . plug it in!
- CK ABSOLUTE RELIABILITY—space-age, solid-state computer, full-year warranty!
- CK MINIMUM ROUTINE MAINTENANCE—only 45 minutes/month, by your machinist!
- CK NO OPERATOR BREAK-IN—uses standard typewriter keyboard!



Here's How Computer Keyboard^(TM) Works...

The Keyboard and Computer are a single unit to provide *reduction in Keystrokes, error prevention and correction facilities, high production rates and quality typesetting resulting in perfect tape*. Character codes are held in the computer memory until a line is justified. As Keyboarding continues, uninterrupted, the "perfect line" is released for automatic punching.

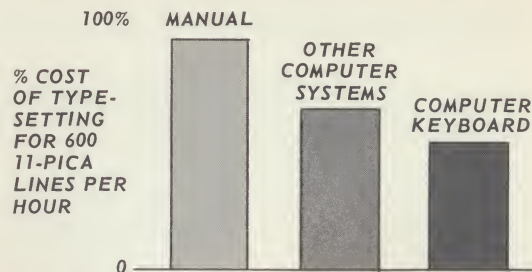


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Computer Keyboard for Instant Profit

From the very first day of operation, Computer Keyboard lowers the cost of composition as no other method can — and creates *immediate tangible profit*, with no significant break-in or training delay! In a matter of hours, your cost per line has dropped to an all-time low.



C-K saves 1¢ per line over the best of other computer systems.
C-K saves 2½¢ per line over manual linecasting.
C-K pays for itself in less than one year.



Computer Keyboard for Higher Speed and Capacity

Simple Standard Typewriter Keyboarding is the modern method of guaranteeing higher speed and increased production capacity. More than 600 lines per hour — completely justified and error-free — can be set from Rough Copy *as easily as touch typing*. “Hard Copy” is typed *simultaneously*, the operator is never lost — need *never* “read” a tape — need *never* learn a “code”! Higher output is achieved by producing perfect tapes for your tape-controlled linecasting equipment. No waste of time because of “Rubouts”!

Computer Keyboard for Improved Quality

High quality can always be obtained through painstaking effort by a highly-skilled craftsman — that's one way! The *easy* way is C-K.

Uniformly high quality workmanship is *always* obtained, easily and rapidly, with Computer Keyboard. Perfect automatic justification and manual hyphenation are simple key-stroke operations. Error possibility is greatly reduced — deletion of complete words or lines is automatic, loose or tight lines are impossible, mats and linecasters have far greater trouble-free life, and *each line typed can be instantly and directly proofread* before it is punched. . .an exclusive feature of computer keyboard, invaluable at deadline time!

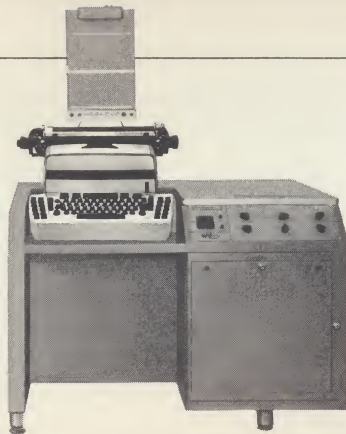


C-K gives you **both** tape and **hard copy simultaneously** for instantaneous error detection.

Computer Keyboard for Complete Compatibility



Computer Keyboard is a unique innovation in computerized typesetting — it is the *first and only* sensible and practical marriage of a *standard* typewriter keyboard with a special-purpose computer, to generate punched paper tapes that will *operate any tape-controlled typesetter*. C-K is compatible at *both* ends — to conventional typewriting skills at the input, and to *all* conventional tape-driven typesetters at the output. . .and to any and all type-fonts, makeup style, mechanical production rates, etc., now or in the future!

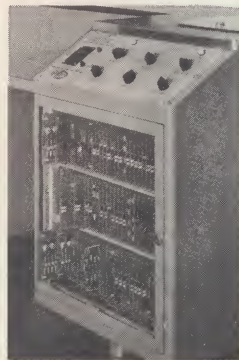


Computer Keyboard — No Installation Costs

Wheel it up. . .plug it in. . .and you are ready to use C-K—the modern method of generating perfect punched tapes. Computer Keyboard is completely contained in a single compact, functionally-styled console. It can be installed *anywhere* — no architectural modifications required, no extra equipment to buy. In fact, galley-storage space is *reduced*, since compact tapes can be stored permanently. Hence, floor space requirements may actually be reduced.

Computer Keyboard Ensures Absolute Reliability

Computer Keyboard incorporates space age, solid-state components and circuits providing the *highest system reliability* possible. Reliability is further ensured by the use of instantly replaceable plug-in modules. A very small inexpensive set of spare modules will provide all the back-up needed to keep your C-K's going.



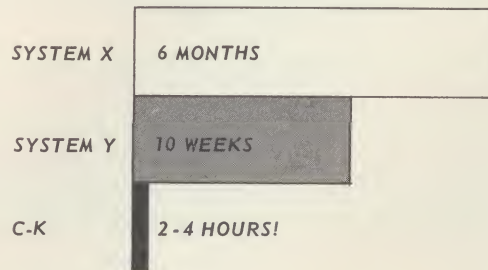
Computer Keyboard Requires Minimum Routine Maintenance



Only the most rugged, high-quality electrical components and simple, non-critical mechanical construction are used in the manufacture of Computer Keyboard, thus ensuring a long and trouble-free operating life. Minimum routine maintenance can easily be performed in only 45 min/month by any competent composing-room machinist with less than a day's training. Plug-in solid-state electronics, easily accessible, employ *proven*, highly dependable circuitry, designed to operate without adjustment over a wide range of operating conditions.

Computer Keyboard —No Operator Break-in Costs

Speed *and* accuracy together are achieved *only* by a *competent* operator. In just a few hours, *any* typist or linotype operator with ordinary typing ability can be a *competent* C-K operator. No specialized, expensive computer programmers needed. . .no involved calculations to make. . .no long training programs away from home. . .in short, no operator break-in costs at all.



Computer Keyboard Can Be Yours Without Financial Strain

On the preceding pages, the facts about Computer Keyboard have been simply stated — but to say only that C-K is a labor-saving and cost-saving automatic typesetting system for your composing room does not give you the full picture. Computer Keyboard is the *only* sure way to guarantee *rapid results* from a modest investment in automation that will give you maximum flexibility in your composing-room operations. Use this handy postage-paid reply card to get more details about low-cost direct purchase, installment purchase, rental, or lease-purchase plans, and the economics of owning automatic typesetting equipment.

**FOR PROOF OF
THE COMPLETE SUPERIORITY
OF THE C-K SYSTEM
—USE THIS CARD to arrange
for a FREE DEMONSTRATION!**

Gentlemen: Yes, I'm interested in Computer Keyboard —

- ☐ Please send me the complete analysis of the economics of "instant profit".
- ☐ I have many questions to ask. Please have your Sales Manager communicate with me to discuss the C-K System.
- ☐ I would like to see Computer Keyboard in operation.

Call me at _____ to arrange for a demonstration.
(TELEPHONE #, EXT. #)

I understand that the above services are provided without cost or obligation.

We now ☐ use ☐ do not use tape.

Number of linecasting machines _____

NAME _____ TITLE _____
COMPANY _____
STREET ADDRESS _____
CITY _____ STATE _____ ZIP CODE _____

Unique Features

- Less Keystrokes Required
- Automatic error prevention and error correction
- Automatic calculation and insertion of quad codes, spaces and leader dots.
- Automatic running indentation
- Fast automatic justification
- No tape rubout

Specifications

- Maximum system speed: Prints and punches up to 400 characters per minute.
- Tape type and tape code: Standard 7/8" paper tape. For line-casting machines, a 6-level, Advanced Feed-hole TTS format is used, punched at 110 codes per second.
- Power: Standard 115-120 V, 48 to 62 cps line.
- Installation: No special installation required. Plug in and operate anywhere.
- Console dimensions: Desk size. 30" x 45".
- Operating ambient temperature range: 45 to 120°F.

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Boston, Massachusetts 02125.

C-K Division



C-K Division of DI/AN Controls, Inc.

944 Dorchester Avenue

Boston, Massachusetts 02125





ANSWERS



The answers to 20 good questions about C-K . . .
the modern, low-cost route to typesetting automa-
tion in composing-rooms of all sizes.

1. What is Computer Keyboard?

ANSWER The Keyboard and Computer are a single unit to *provide reduction in Key-strokes, error prevention and correction facilities, high production rates and quality typesetting resulting in perfect tape*. Character codes are held in the computer memory until a line is justified. As Keyboarding continues, uninterrupted, the "perfect line" is released for automatic punching.

2. Does C-K computerized typesetting actually lower the cost of composition?

ANSWER Definitely! Facts gathered from impartial surveys have shown that C-K significantly increases speed, deadline capacity, and produces flawless linecasting, *at far lower costs per line set — 1¢ to 2.5¢ per line lower than by any other method, manual or automatic!*

3. How does Computer Keyboard set type?

ANSWER In one step — simply by typing the copy on the standard typewriter keyboard. C-K automatically provides a punched paper tape which may then be fed to any tape-controlled linecaster. The result is error-free, completely-justified type — column after column, produced at maximum speed.

4. How is justification controlled?

ANSWER *Electronically* — no operator calculations are ever required. Justification is fast and automatic at any preset line length. The operator need never make a calculation or a judgement — the computer does the worrying, leaving the operator free to concentrate on speed and accuracy.

5. Does the C-K operator have to make calculations for adding spaces, leader dots, or blanks?

ANSWER No. The unique computer circuits of the C-K system automatically calculate and insert the required spaces, leader dots, and other repetitive elements, far more rapidly and accurately than by any other method, manual or automatic.

C-K Keyboard hyphenation is visually aided by an array of multi-colored indicator lights, ensuring the most rapid, simple, and error-free keyboard hyphenation ever provided by any system.

6. Does the C-K operator have to calculate when quadding?

ANSWER No. Quadding is "built in". Calculation and insertion of quad codes for flush left, right, and centered text are all automatically accomplished by the computer keyboard system. No extra "attachments" to buy!

7. Does Computer Keyboard provide for proofreading before typecasting?

ANSWER Yes. The C-K keyboard is made by modifying a standard typewriter, which provides a *visible copy* of each line, as it is typed, so that proofreading is instantaneous and the punched tape result is error-free and ready for perfect linecasting, greatly reducing the burden on the proofreaders, as well as the cost of the proofreading and correction operations.

8. How are corrections made?

ANSWER Easily and rapidly. As the line is typed, "hard copy" — in *English*, not a tape code — is produced, to permit error correction *before* the tape is punched for that line. NO TAPE CORRECTING OR READING!

9. At what speed will tape punched on a Computer Keyboard operate my linecasting machine?

ANSWER Maximum C-K speed exceeds the maximum speed of any linecasting machine on the market today. Typically, over 700 newspaper lines per hour (11 picas, 8 pt). C-K can print and punch 400 characters a minute.

Because errors are corrected before punching, your linecasting equipment will operate at peak efficiency with C-K tapes.

10. Can the Computer Keyboard punched tapes be used on any standard 6-channel tape-driven linecasting machine?

ANSWER Yes — C-K produced tapes will operate any modern tape-driven linecasting machine now available commercially. . . and will drive most of the new photo-composing machines.

11. *Will C-K accommodate any type font I now use?*

ANSWER Yes! Further, new fonts may be added to your system, at nominal cost, at any time in the future, without modification, by ordering appropriate plug-in "font-cards". A "variable-font" card is also available, for special "on-the-spot" modification.

12. *How many type fonts can be selected on the C-K control panel?*

ANSWER The flip of a switch selects any one of 9 fonts automatically. It takes but a few minutes to slip in a new set of plug-in "font-cards", thus providing an unlimited selection of fonts.

13. *Does C-K use special tape?*

ANSWER No. Computer Keyboard uses standard 7/8" paper tape. . . or any other advance-feed-hole tape you desire, on special order.

14. *How is Computer Keyboard installed?*

ANSWER Simply wheel it up and plug it in! There is no construction or installation expense — and there are no extras to buy. Computer Keyboard is complete in one compact, functionally-styled console that fits anywhere (only 30" x 45" — less than ten sq. ft!) and plugs into a standard 115V, 60 cycle AC outlet; Draws less power than a toaster. . . less than 250 watts!

15. *Is type storage a problem?*

ANSWER No. In fact, with C-K storage area is greatly reduced, since tape takes far less space to store than lead galleys, freeing up composing room space, while providing permanent storage of all critical copy, for later reconstruction, if necessary.

16. *Is the C-K Computer sold under a warranty?*

ANSWER Yes — a full, unconditional one-year warranty. . . the most complete guarantee ever provided in the printing equipment field!

17. *What about routine maintenance?*

ANSWER Only 45 minutes per month — that's *all*. Your composing room machinists can perform all necessary routine maintenance easily in that short time. . . with a few hours of instruction on installation day.

18. *What about maintaining or repairing the electronics?*

ANSWER The Computer Keyboard has been designed to give many thousands of hours of trouble-free service. It uses the latest plug-in space-age solid-state electronic circuits. If a repair should be necessary, no costly rewiring or elaborate trouble-shooting is required — location and replacement of the defective circuit is accomplished in a matter of minutes, by simple, logical procedures described in the operating manual. A C-K serviceman is always on duty, as near as your telephone, if you should need advice or direct expert assistance.

19. *Is there an extra charge for operator training?*

ANSWER No. In just a few short hours, any typist or linecasting machine operator can be a competent C-K operator. Factory briefing is available if you wish, in advance of installation, at no charge. Usually, one day is more than enough. Many users prefer to wait until installation day, and have several operators trained "on the job".

20. *I'm interested. How can I get specific help in planning a Computer Keyboard installation for my typesetting operations?*

ANSWER Easy! Just call (617) 288-7700, and ask for Ken Holley or George Mitziga. We'll analyze your present setup, design an optimum C-K installation, and come up with all the facts and figures. Later we'll arrange for a demonstration, too. With all the facts, you will convince yourself that Computer Keyboard is the only way to go. We say that with complete confidence — all we ask is a chance to prove it.

COMPUTER KEYBOARD...

- INSTANT PROFIT
- HIGHER SPEED
- FLAWLESS LINECASTING
- COMPLETE COMPATABILITY
- NO INSTALLATION COSTS
- ABSOLUTE RELIABILITY
- MINIMUM ROUTINE MAINTENANCE
- NO OPERATOR BREAK-IN



FEATURES:

- Less keystrokes required
- Automatic error prevention
- Error correction before tape punch
- Automatic calculation and insertion of quad codes, spaces and leader dots.
- Automatic running indentation
- Fast, automatic justification
- No tape rubout

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C-K Division

DI/AN Controls, Inc., 944 Dorchester Avenue, Boston, Massachusetts 02125

FOR PRINTERS AND PUBLISHERS. . .

THE ECONOMICS OF “INSTANT PROFIT”

**How
Computer
Keyboard
increases
your profit
...from
the very
first day!**

Computer Keyboard is the modern, low-cost route to typesetting automation for composing-rooms of all sizes. It is the unique combination of a standard typewriter keyboard and special-purpose computer into a single unit providing less keystrokes per line, less errors per line, and higher production rates with uninterrupted “perfect line” typesetting at unbelievable savings.

**HARD TO BELIEVE?
SEE FOR YOURSELF—
HERE’S THE PROOF...**

STANDARDS FOR COST CALCULATIONS

From the moment you wheel your Computer Keyboard console into position and plug it in, your profit potential shoots up — to a significantly higher value than is possible with any other typesetting method now available. Calculations for each typesetting method are based on a balanced system. The costs for each equipment, based on a 10 year operating life and a 13 shift/week usage (5000 hours/year), necessary to produce one error-free justified line of type is included for each system. Direct labor is based on a \$4.00 hourly rate and 100% overhead. While costs will vary from one plant to another, they are comparable in any given area. The hourly output rates for operators and equipment are based on averages resulting from extensive surveys into actual composing-room operations.

MANUAL LINECASTER

The average output in 11 pica lines per hour on a manual linecaster is 200, with a 4% error rate. Based on the "Standards for Cost Calculations", the labor to operate a manual linecaster for one hour is \$8.00, proofreading the 200 lines, at an average of 600 lines per hour, costs \$2.66, and 8 error corrections by the operator on a manual linecaster is \$2.00. Taking into account the cost of equipment, as explained in the "Standards for Cost Calculations", one hour of the manual linecaster is \$0.50. Adding the labor costs to the equipment costs results in a total cost of \$13.16 for the 200 lines. Therefore, the total cost for one 11 pica line is. . .

6.6¢

TTS JUSTIFYING KEYBOARD

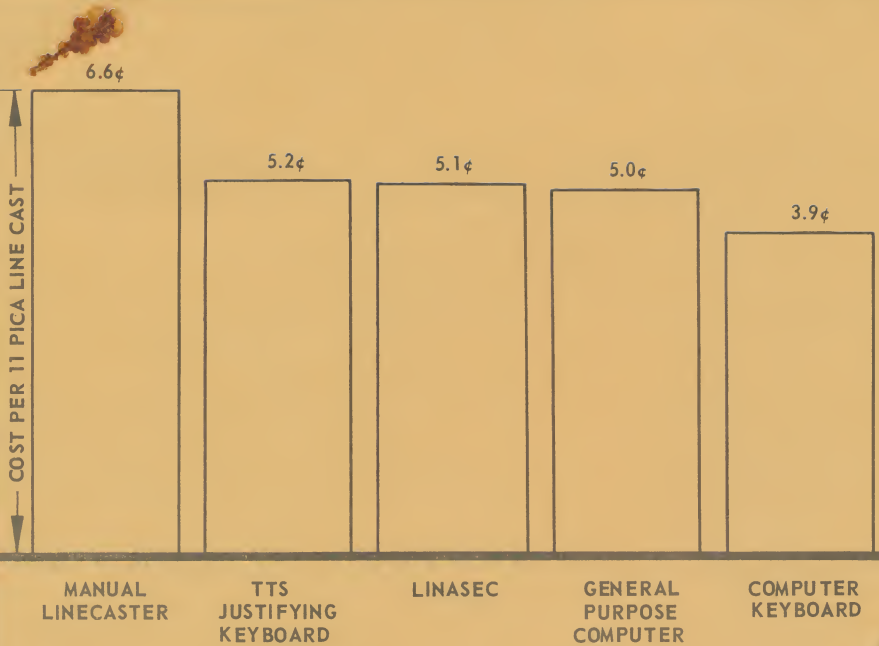
The average output of a TTS Justifying Keyboard operator is 350 11 pica lines per hour, with a 4% error rate. Labor and overhead to keyboard these lines is \$8.00. Since these calculations are based on a balanced system we must include \$1.56 for monitoring a tape-controlled linecaster, at an average rate of 1800 11 pica lines per hour. Proofreading, at a rate of 600 lines per hour, is figured at \$4.66 and operator corrections on the manual linecaster for 14 errors costs \$3.50. The above figures must now be added to the hourly cost of the equipment. In this case, the manual manual linecaster for 14 error corrections is \$0.18, tape-controlled linecaster time is \$0.33, and the TTS Justifying Keyboard is \$0.06. Therefore, the total cost of 350 11 pica lines with a TTS Justifying system is \$18.29. The total cost for one line is. . .

5.2¢

LINASEC

The average operator output on a non-justifying keyboard input to a Linasec system is 450 11 pica lines per hour with a 5.3% error rate. The hourly cost for this function is \$8.00. Since a balanced system is the criteria, the cost of monitoring the Linasec and the tape-controlled linecaster, with an average output of 2600 11 pica lines per hour, is added to the non-justifying keyboarding labor cost. These are \$0.90 and \$1.38, respectively. Proofreading these 450 lines at an average of 600 lines per hour is \$6.00 and correction time on a manual linecaster for 24 errors is \$5.94. As in the previous case, the above figures must now be added to the hourly equipment usage cost. \$0.29 for the manual linecaster, \$0.41 for the tape-controlled linecaster, \$0.04 for the non-justifying keyboard, and \$0.08 for the Linasec. Hence, the total cost for 450 lines with a Linasec system is \$23.04. The cost of one 11 pica line is. . .

5.1¢



GENERAL PURPOSE COMPUTER

A non-justifying keyboard operator produces an average of 450 11 pica lines per hour, with an error rate of 5.3%, for an automatic typesetting system using a general purpose computer. The hourly rate for this function is \$8.00. The balanced system criteria requires adding the operator cost of the general purpose computer, with an average output of 8000 11 pica lines per hour, and the monitoring of a tape-controlled linecaster, with an average output of 2600 11 pica lines per hour, to the keyboarding cost. These figures are \$0.46 and \$1.40, respectively. Proofreading, at 600 lines per hour, is \$6.00 and correction of 24 errors is \$5.94. As in the previous case, the above figures must be added to the hourly equipment usage cost. \$0.29 for the manual linecaster, \$0.41 for the tape-controlled linecaster, \$0.04 for the non-justifying keyboard, and \$0.28 for the general purpose computer. The total cost for 450 lines with a general purpose computer system is \$22.82. The cost of one 11 pica line is. . .

COMPUTER KEYBOARD

A C-K operator can produce an average of 600 11 pica lines per hour with a 3% error rate. At this rate, labor and overhead costs per hour, according to the standards established above, are \$8.00 for operator keyboarding, \$1.84 for tape-controlled linecaster operating at 2600 lines per hour with a C-K punched tape, \$8.00 for proofreading, and \$4.50 for corrections made by the operator on a manual linecaster. In addition to the above figures, the cost of equipment, based on total yearly cost or rental, must be added. In this C-K calculation, the hourly cost of operating a manual linecaster for 18 error corrections is \$0.22, a tape-controlled linecaster is \$0.51, and Computer Keyboard is \$0.45. When these figures are added together, the total cost of 600 lines with a Computer Keyboard system is \$23.52. Simple division shows that at the rate of 600 lines per hour output, the total cost of one 11 pica line is. . .

POSITIVE PROOF...

COMPUTER KEYBOARD
 SAVES 1¢ PER LINE
 OVER ANY OTHER
 COMPUTERIZED SYSTEM. . .
 SAVES 2½¢ PER LINE
 OVER MANUAL OPERATION.
 1¢ PER LINE SAVED
 IS \$70,000
 SAVED PER YEAR
 FOR THE AVERAGE SIZE
 DAILY NEWSPAPER WITH
 2 EDITIONS.

5.0¢

3.9¢

COMPUTER KEYBOARD FEATURES:

- **INSTANT PROFIT** — from the very first day!
- **HIGHER SPEED** — no rubouts. . . far greater capacity!
- **FLAWLESS LINECASTING** — perfect automatic justification . . . errors sharply reduced!
- **COMPLETE COMPATIBILITY** — with any tape-driven linecaster!
- **NO INSTALLATION COSTS** — wheel it up. . . plug it in!
- **ABSOLUTE RELIABILITY** — space-age, solid-state computer, full-year warranty!
- **MINIMUM ROUTINE MAINTENANCE** — only 45 minutes/month, by your machinist!
- **NO OPERATOR BREAK-IN** — uses standard typewriter keyboard!

COMPUTER KEYBOARD SPECIFICATIONS:

- **Maximum system speed:** Prints and punches up to 400 characters per minute.
- **Tape type and tape code:** Standard 7/8" paper tape. For linecasting machines, a 6-level, Advanced Feed-hole TTS format is used, punched at 110 codes per second.
- **Power:** Standard 115-120 V, 48 to 62 cps line.
- **Installation:** No special installation required. Plug in and operate anywhere.
- **Console dimensions:** Desk size, 30" x 45".
- **Operating ambient temperature range:** 45° to 120° F.

Call or Write Today...

Start Profit on its Way!

Call direct — (617) 288-7700



C-K Division of DI/AN CONTROLS, INC.,

944 Dorchester Avenue, Boston, Mass., 02125

